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ABSTRACT

The effect of enrollment in prerequisite courses on success in advanced courses was examined in a study of a sample of students who completed a business cooperative experiences program between 1994-1995 and 2001-2002. Of the 163 students in the sample, 80 completed the prerequisite courses (Technology Lab I and II) before the advanced course, and 83 did not take the prerequisite course. Ex post facto research was used to compare the following factors: students' attendance/days missed; employer and program coordinator evaluations of students' performance; and students' term 1 and term 2 grades. A two-tailed Pearson correlation test was used to identify relationships between individual factors. No relationship was found between students' completion of the prerequisite courses and their success in the advanced course. According to the instructor coordinator, some of the more successful students in the advanced program were the ones who had not taken the prerequisite courses. However, those students had excellent skills, work ethics, and attendance. (The bibliography lists four references. The following items are appended: tables of statistical correlations; descriptions of the study courses; ERIC database entries for two studies on the effects of prerequisites; and the information on prerequisites that is provided to students at Santa Rosa Junior College, California.) (MN)

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Are Prerequisite Courses Necessary for Success in Advanced Courses?

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Abstract

This study examines the success of students who have completed the Business Cooperative Experiences Coop Program. A comparison of raw data was made of students who took the prerequisite course, Technology Lab I & II, and of those who did not take the prerequisite course. Expost facto research was used to compare the two groups, years, attendance/days missed, employer evaluations, program coordinator evaluations, term 1 grades, and term 2 grades of students during an eight-year period from 1994/95 to 2001/02. Groups and years are categories that differentiate the students. Attendance/days missed, employer evaluations, and program coordinator evaluations are tools that are used to determine the students' term 1 and term 2 grades.

It was concluded from the research results that there was no relationship between the completion of the prerequisite course and the success of students in the advanced course.

Background of the Problem

A prerequisite is defined as a precondition; something that is essential, necessary, imperative, indispensable; a requirement or a stipulation.

The Indiana Department of Education develops course names and descriptions for each educational discipline taught in the public school system. Some courses and programs require prerequisite courses as the Department of Education feels that prerequisite courses present information and develop competencies that are necessary for success in the advanced course. The student handbook of Santa Rosa Junior College, Santa Rosa, California, tells its' students, "if a course has a prerequisite, it must be necessary for success in the target course" ("Santa Rosa", 2000).

The program examined in this study is the Business Cooperative Experiences Coop Program and its prerequisite course, Technology Lab I & II.

"The Business Cooperative Experiences Coop Program is a vocational business program that provides opportunities for students to gain 'real world' attitudes, skills, and knowledge through on-the-job training and related-classroom instruction. The classroom instruction is a blend of both group and individual instruction planned and organized with activities associated toward the students' career objectives and on-the-job training. This business cooperative experience allows students school release time for the opportunity to be employed in a business related occupation to apply attitudes, skills, and knowledge from school

to work" ("Business", 1997). The release time is offered during the students' senior year.

The program is structured such that students are required to take a prerequisite course during their junior year; Technology Lab I & II is the junior prerequisite course. "Technology Lab I is a vocational business course that assists students in successfully making the transition from school to work. The business technology curriculum provides instruction in the use of current technology with an emphasis on the integration and application of communication, employability, math, and language arts skills. Educational experiences are based upon the student's individual career and educational goals" ("Business", 1997).

"Technology Lab II continues to refine the business skills and knowledge previously acquired. As a capstone program, students are prepared for employment in various business occupations or to continue study in a post-secondary institution. Instructional strategies may include workflow simulations and field experiences such as job shadowing, mentoring, and/or internships" ("Business", 1997). A study to validate the prerequisite system at San Jose/Evergreen Community College was conducted with the results being, "the overall success rate for all disciplines among students who met their prerequisites in fall of 1991 was 67%" (Landers, Kangas, 1992). The authors of the study, Wayne Landers and Jon Kangas (1992) further noted, "students meeting all

prerequisites had a 28% better chance of success than those taking courses above their prerequisite."

The success and continuation of the Business Cooperative Experiences Coop Program depends up on two criteria: the students' individual successes in the workplace and an adequate enrollment of students in the program.

Nearly one-half of the students who completed the Business Cooperative Experiences Program Coop Program during an eight-year period between 1994/95 through 2001/02 had participation in the program as a goal throughout their high school career and planned their schedule to accommodate the prerequisite course. They were "on track" toward success in the senior program.

However, there are other students who did make such good plans. As their senior year approached, they become aware of the Business Cooperative Experiences Coop Program and wanted to be involved in it for such reasons as:

- release time from school.
- a part-time job.
- professional work experience.
- a "head start" in the world of work.

The question arose, should students who had not taken the prerequisite course, be allowed to take the advanced course? Can students develop competencies and obtain work ethic skills in courses other than those that are deemed as prerequisite courses for an advanced program · The Office of

Institutional Research Miami-Dade Community College, Miami, Florida, reported that "passing prerequisite courses does not ensure that students are adequately prepared for the next course in the sequence" ("Miami", 2000).

Students are required by the Indiana State Department of Education to take specific subjects to qualify for graduation from high school. These subjects include language arts and math, two of the competencies taught in the prerequisite course. Employability and work ethic skills such as attendance, time management, initiative, judgment, quality of work, appearance, people skills, etc., are demonstrated throughout the school environment and in the individual students' homes. But, is this exposure to the academic skills and interpersonal skills enough to prepare students for the "real world" on-the-job training in which they will participate?

Historically, the number of students who have taken the prerequisite course and who have enrolled in the Business Cooperative Experiences Coop Program has not been sufficient to maintain the program. It is the hope that the results of this study will show that students who have not taken the prerequisite can be as successful as students who have taken the prerequisite. This knowledge will continue to allow those students who have not taken the prerequisite course to enroll in the advanced course. This will help maintain program numbers and enable the program to continue to offer quality student workers to the area businesses that provide the work experiences.

Statement of the Problem

The success and continuation of the Business Cooperative Experiences Coop Program depends upon the success of the students at their workplace and upon an adequate enrollment in the program.

The students who take the prerequisite course in preparation for the program acquire the skills necessary for success. However, the number of students who have prepared themselves for the program may not be adequate for the continuation of the program. Students who have not taken the prerequisite course must be considered. Among these students are those who are interested in the program for various reasons.

For the purpose of this study, a directional hypothesis was tested: Students in the advanced program, who have not taken the prerequisite course, can perform as well as the students in the advanced program who have taken the prerequisite course.

Methodology

The sample of this study consisted of 163 students who completed the Business Cooperative Experiences Coop Program during an eight-year period from 1994/95 through 2001/02. Eighty of the students completed the prerequisite course prior to the advanced course; eighty-three did not take the prerequisite course.

The data used in the study was taken directly from individual student records. Data compared included group, year, attendance/days missed, employer evaluations, program coordinator evaluations, term 1 grades, and term 2 grades. Data of those students who completed the prerequisite course was compared to data of students who did not complete the prerequisite course.

This sample can be considered as representative of the population as the data of all students who participated during the years 1994/95 through 2001/02 was used in the study.

Group data represented students who completed the prerequisite course and students who did not complete the prerequisite.

Year data represented the eight-year period of the study.

Attendance/days missed data was used as data in the study as there is no subjectivity involved. The data is actual data according to student records.

Employer evaluations and program coordinator evaluations were both used as data as one validates the other. Employer evaluations can be unreliable to

use as the only indication of student success because of the variety of personalities of the employers and of the workplaces. The employers can be one that is "soft-hearted" or more lenient in their evaluations. Some employers are related to the students so their evaluations are subject to question. The program coordinator evaluations, however, are one person's opinion of student success. This data represents a reliable evaluation.

Term 1 grades and term 2 grades also serve as valuable data as the determination of the data is objective based on the quality of assignments completed by the students.

A report of the data used in the study is included in the appendix. Column headings represent the following:

Column Heading	Represents:
group	#1=no course prerequisite
group	#2=course prerequisite
year	#1=1994/95, #2=1995/96, #3=1996/97, #4=1997/98, #5=1998/99, #6=1999/2000 #7=2000/01, #8=2001/02
misse	attendance/days missed
empl	employer evaluations
coord	program coordinator evaluations
t1grad	term 1 grades
t2grad	term 2 grades

Expost facto research was used to compare the data of students who had taken the prerequisite course and the data of students who had had not taken the prerequisite course.

A relationship study was conducted using the Pearson Correlation (2-tailed) statistical test.

Results

Table 1, on the following page, shows the correlated variables, the t value for each correlation, the degrees of freedom, and the significance levels.

Correlation is significant at the 0.01 level in the following correlations: group and year--t value=.000, attendance/days missed and employer evaluations--t value=.000, attendance/days missed and program coordinator evaluations--t value=.008, attendance/days missed and term 1 grades--t value=.000, attendance/days missed and term 2 grades--t value=.000, employer evaluations and term 1 grades--t value=.000, employer evaluations and term 2 grades--t value=.000, and term 1 grades and term 2 grades--t value=.000. Correlation is nearly significant at the 0.05 level between group and term 2 grades--t value=.068, and significant at the 0.05 level between the employer evaluations and program coordinator evaluation correlation--t value=.038. The degrees of freedom for each correlation is 6.

Table 1
Statistical Test of the Hypothesis

Correlated Variables		t	df	significance
Group	Year	.000	6	<.01
Group	Term 2 Grades	.068	6	nearly .05
Attendance/Days Missed	Employer Evaluations	.000	6	<.01
Attendance/Days Missed	Program Coordinator Evaluations	.008	6	<.01
Attendance/Days Missed	Term 1 Grades	.000	6	<.01
Attendance/Days Missed	Term 2 Grades	.000	6	<.01
Employer Evaluations	Program Coordinator Evaluations	.038	6	<.05
Employer Evaluations	Term 1 Grades	.000	6	<.01
Employer Evaluations	Term 2 Grades	.000	6	<.01
Term 1 Grades	Term 2 Grades	.000	6	<.01

Chart 1 shows a comparison of the number of students who had taken the prerequisite course and the students who had not taken the course; eighty students and eighty-three students, respectively.

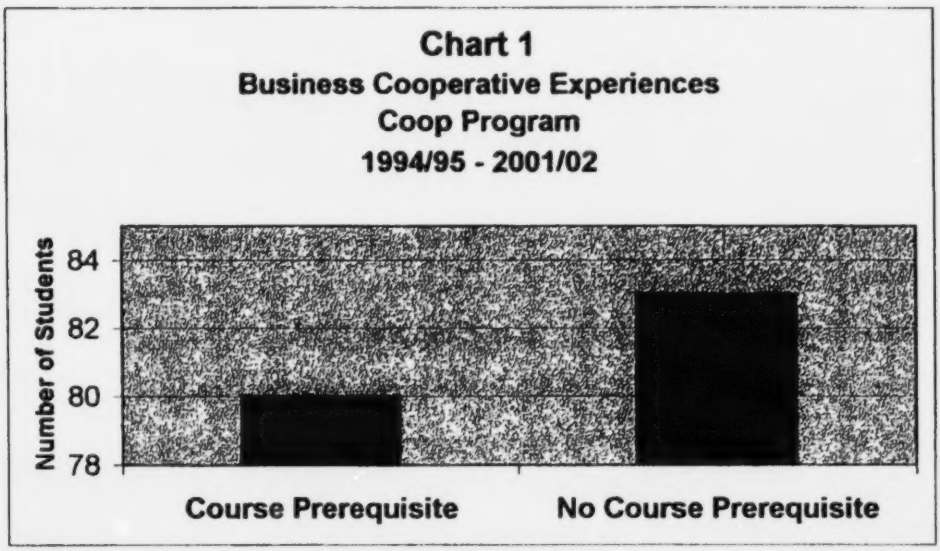
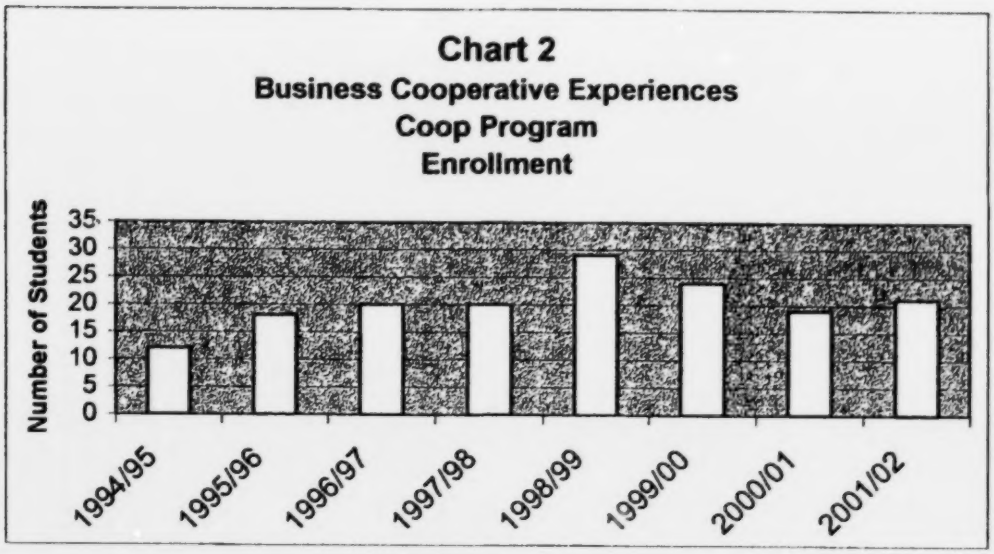


Chart 2 shows the student enrollment numbers in the Business Cooperative Experiences Coop Program during the eight years of the study.



Discussion, Conclusions, and Recommendations

For the purpose of this study, the success of students who had taken the prerequisite course was compared to the success of students who had not taken the prerequisite course. The results of the relationship study showed that there was no relationship between the completion of the prerequisite course and the success of students in the advanced course.

The statistical results were surprising in some instances and not surprising in others. It was a surprising statistic to see that over one-half of the students who completed the advanced course had not taken the prerequisite course. However, it is not surprising that students can be successful in the advanced course without taking the prerequisite. It had been noted by the program coordinator that some of the more successful students in the advanced program were ones that had not taken the prerequisite. But, these students had excellent skills, work ethic, and attendance and had brought those skills with them into the advanced course. The program recognizes an outstanding student each year with the "Employee of the Year" award. Employers nominate the students for this and several of the recipients over the eight-year period have been students who did not take the prerequisite course.

Nonetheless, students are highly encouraged to take the prerequisite course for several reasons as it:

- is the recommended prerequisite for the Business Cooperative Experiences Coop Program.
- explores the world of business.
- teaches skills that are beneficial for success in the world of work.
- provides instruction in the use of current technology.
- emphasizes the integration and application of communication, employability, math, and language arts skills.
- counts as an elective credit.
- is a "fun" course, one in which students can see real world applications.

One important reason that students are encouraged to take the prerequisite course is to give the program coordinator the opportunity to get to know the students and their career goals, abilities, and work ethic. The program coordinator can then place the students into a workplace that is appropriate for their career goals and can confidently recommend that student for the position.

The future of the Business Cooperative Experiences Coop Program depends upon the inclusion of students who have not taken the prerequisite course. But, these students must demonstrate competencies and work ethic worthy of the quality of the advanced program.

References

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Correlations

Correlations

		GROUP	YEAR	MISSED	EMPL	COORD	T1GRAD	T2GRADE
GROUP	Pearson Correlation	1.000	-.294**	.077	.072	-.057	.083	.143
	Sig. (2-tailed)		.000	.332	.361	.466	.293	.068
	N	163	163	163	163	163	163	163
YEAR	Pearson Correlation	-.294**	1.000	.038	.021	.003	.031	.013
	Sig. (2-tailed)	.000		.630	.788	.966	.690	.865
	N	163	163	163	163	163	163	163
MISSED	Pearson Correlation	.077	.038	1.000	-.291**	.206**	-.436**	.364**
	Sig. (2-tailed)	.332	.630		.000	.008	.000	.000
	N	163	163	163	163	163	163	163
EMPL	Pearson Correlation	.072	.021	-.291**	1.000	.163*	.594**	.572**
	Sig. (2-tailed)	.361	.788	.000		.038	.000	.000
	N	163	163	163	163	163	163	163
COORD	Pearson Correlation	.057	.003	-.206**	.163*	1.000	.086	.014
	Sig. (2-tailed)	.466	.966	.008	.038		.274	.858
	N	163	163	163	163	163	163	163
T1GRAD	Pearson Correlation	.083	.031	-.436**	.594**	.086	1.000	.668**
	Sig. (2-tailed)	.293	.690	.000	.000	.274		.000
	N	163	163	163	163	163	163	163
T2GRADE	Pearson Correlation	.143	.013	-.364**	.572**	.014	.668**	1.000
	Sig. (2-tailed)	.068	.865	.000	.000	.858	.000	
	N	163	163	163	163	163	163	163

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

	group	year	misse	empl	coord	t1grad	t2grad	var00002
1	1	7	2	46	50	4.00	4.00	.
2	1	7	13	50	49	4.00	4.00	.
3	1	7	0	47	49	4.00	4.00	.
4	1	7	9	44	44	3.00	4.00	.
5	1	7	4	5	37	3.00	3.00	.
6	1	7	7	25	39	3.67	3.00	.
7	1	7	6	35	45	4.00	3.33	.
8	1	7	8	50	44	4.00	4.00	.
9	1	7	0	50	50	4.00	4.00	.
10	1	7	7	46	50	4.00	4.00	.
11	1	7	6	0	30	.30	3.00	.
12	1	7	3	50	37	3.67	3.67	.
13	1	7	3	50	47	4.00	4.00	.
14	1	7	3	49	49	4.00	4.00	.
15	1	7	2	48	41	3.67	3.67	.
16	1	7	16	50	48	4.00	4.00	.
17	1	8	6	50	50	4.00	4.00	.
18	1	8	0	50	50	4.00	4.00	.
19	1	8	15	50	50	3.67	4.00	.
20	1	8	6	42	39	4.00	3.67	.
21	1	8	0	50	50	4.00	4.00	.
22	1	8	0	43	50	4.00	4.00	.
23	1	8	3	48	43	4.00	4.00	.
24	1	8	8	50	50	4.00	4.00	.
25	1	8	1	50	50	4.00	4.00	.
26	1	8	9	50	50	4.00	4.00	.
27	1	8	10	35	37	3.33	3.00	.
28	1	8	0	50	50	4.00	4.00	.
29	1	2	2	40	50	4.00	4.00	.
30	1	2	44	46	50	4.00	3.67	.

	group	year	misse	empl	coord	t1grad	t2grad	var00002
31	1	2	1	48	50	4.00	4.00	.
32	1	2	5	48	49	4.00	4.00	.
33	1	2	5	40	49	4.00	4.00	.
34	1	2	14	44	45	3.33	3.33	.
35	1	2	3	49	43	2.33	2.33	.
36	1	3	11	29	45	2.67	2.67	.
37	1	3	10	31	40	2.37	3.67	.
38	1	3	0	40	43	3.67	3.67	.
39	1	3	4	48	45	4.00	4.00	.
40	1	3	11	49	45	4.00	4.00	.
41	1	3	0	45	45	4.00	4.00	.
42	1	3	6	50	45	4.00	4.00	.
43	1	3	13	48	46	4.00	2.67	.
44	1	3	26	30	40	2.33	2.33	.
45	1	4	7	41	44	3.00	3.00	.
46	1	4	0	45	49	4.00	4.00	.
47	1	4	0	46	47	4.00	4.00	.
48	1	4	5	49	48	4.00	4.00	.
49	1	4	7	35	35	2.67	2.67	.
50	1	4	8	25	43	3.00	3.00	.
51	1	4	15	0	37	.00	.00	.
52	1	4	2	47	50	4.00	4.00	.
53	1	4	8	39	47	4.00	4.00	.
54	1	4	3	36	44	3.00	3.00	.
55	1	5	10	24	38	3.33	4.00	.
56	1	5	1	50	50	4.00	4.00	.
57	1	5	1	44	396	2.33	2.33	.
58	1	5	17	49	38	4.00	3.33	.
59	1	5	22	0	35	3.33	3.33	.
60	1	5	36	30	24	2.33	2.33	.

	group	year	misse	empl	coord	t1grad	t2grad	var00002
61	1	5	24	16	37	1.33	1.33	.
62	1	5	6	28	40	3.67	4.00	.
63	1	5	16	47	33	4.00	3.67	.
64	1	5	0	49	50	4.00	4.00	.
65	1	5	16	0	29	1.00	1.00	.
66	1	5	12	46	42	4.00	3.67	.
67	1	5	22	14	18	1.00	1.00	.
68	1	5	6	52	47	4.00	3.33	.
69	1	5	0	47	47	4.00	2.67	.
70	1	5	4	0	36	3.33	3.33	.
71	1	6	45	31	27	2.00	1.00	.
72	1	6	22	29	31	1.67	2.00	.
73	1	6	36	46	26	1.33	1.33	.
74	1	6	2	48	50	4.00	4.00	.
75	1	6	8	45	22	1.00	1.00	.
76	1	6	0	0	27	2.37	1.00	.
77	1	6	2	0	47	4.00	.00	.
78	1	6	12	50	30	4.00	4.00	.
79	1	6	8	46	45	4.00	4.00	.
80	1	6	8	42	41	3.37	3.67	.
81	1	6	10	10	33	2.00	2.00	.
82	1	6	22	42	31	3.00	2.67	.
83	1	6	0	50	50	4.00	4.00	.
84	2	7	6	50	45	3.67	3.67	.
85	2	7	0	48	50	4.00	4.00	.
86	2	7	26	50	46	3.67	3.67	.
87	2	8	18	50	50	4.00	4.00	.
88	2	8	3	45	50	4.00	4.00	.
89	2	8	8	50	43	4.00	4.00	.
90	2	8	1	50	50	4.00	4.00	.

	group	year	misse	empl	coord	t1grad	t2grad	var00002
91	2	8	0	50	50	4.00	4.00	.
92	2	8	15	49	48	2.00	4.00	.
93	2	8	18	49	31	2.33	2.00	.
94	2	8	9	32	35	2.33	3.00	.
95	2	8	15	50	49	4.00	4.00	.
96	2	1	20	46	44	4.00	4.00	.
97	2	1	0	45	44	4.00	4.00	.
98	2	1	12	42	45	3.33	3.33	.
99	2	1	6	44	47	4.00	4.00	.
100	2	1	3	50	47	3.67	3.67	.
101	2	1	10	47	48	4.00	4.00	.
102	2	1	4	27	38	2.00	3.33	.
103	2	1	1	40	46	4.00	4.00	.
104	2	1	3	43	46	4.00	4.00	.
105	2	1	18	26	47	2.67	2.67	.
106	2	1	6	48	46	4.00	4.00	.
107	2	1	4	50	46	4.00	4.00	.
108	2	2	24	43	38	3.67	3.67	.
109	2	2	33	7	22	2.00	2.00	.
110	2	2	3	47	50	4.00	4.00	.
111	2	2	12	11	36	2.00	2.00	.
112	2	2	4	50	49	4.00	4.00	.
113	2	2	14	48	41	3.00	3.00	.
114	2	2	6	49	49	4.00	4.00	.
115	2	2	1	45	45	2.33	2.33	.
116	2	2	10	45	36	2.67	2.67	.
117	2	2	15	50	48	4.00	4.00	.
118	2	2	18	40	40	3.00	3.00	.
119	2	3	18	16	46	3.33	3.33	.
120	2	3	7	49	45	3.67	4.00	.

	group	year	misse	empl	coord	t1grad	t2grad	var00002
121	2	3	1	33	44	3.00	3.00	.
122	2	3	1	47	48	4.00	3.67	.
123	2	3	4	46	48	4.00	4.00	.
124	2	3	3	44	45	4.00	4.00	.
125	2	3	2	50	46	4.00	4.00	.
126	2	3	4	47	46	3.33	4.00	.
127	2	3	2	50	49	4.00	4.00	.
128	2	3	1	47	46	3.00	3.67	.
129	2	3	2	43	48	3.67	2.33	.
130	2	4	12	42	46	3.67	3.67	.
131	2	4	15	44	41	3.00	2.00	.
132	2	4	23	48	44	4.00	3.67	.
133	2	4	8	50	46	4.00	4.00	.
134	2	4	3	49	50	4.00	4.00	.
135	2	4	3	47	46	3.67	2.33	.
136	2	4	24	35	38	3.67	3.67	.
137	2	4	15	44	4	3.00	10.00	.
138	2	4	14	50	45	4.00	4.00	.
139	2	4	22	45	46	4.00	4.00	.
140	2	5	8	45	39	3.00	3.00	.
141	2	5	19	16	34	2.33	2.00	.
142	2	5	45	16	33	3.33	2.33	.
143	2	5	15	31	38	3.67	3.67	.
144	2	5	16	25	33	3.33	3.33	.
145	2	5	52	0	22	.00	.00	.
146	2	5	2	47	50	4.00	4.00	.
147	2	5	6	41	47	4.00	4.00	.
148	2	5	5	41	50	4.00	4.00	.
149	2	5	0	25	40	3.33	3.33	.
150	2	5	4	0	43	4.00	2.67	.

	group	year	misse	empl	coord	t1grad	t2grad	var00002
151	2	5	4	47	44	3.67	4.00	.
152	2	5	4	46	46	3.33	3.33	.
153	2	6	0	0	44	3.33	3.33	.
154	2	6	8	43	49	4.00	4.00	.
155	2	6	18	29	42	4.00	3.00	.
156	2	6	19	34	35	3.00	3.00	.
157	2	6	13	46	50	4.00	4.00	.
158	2	6	8	48	44	3.67	4.00	.
159	2	6	6	44	41	3.67	4.00	.
160	2	6	10	47	41	3.67	4.00	.
161	2	6	13	35	47	4.00	4.00	.
162	2	6	10	46	45	4.00	4.00	.
163	2	6	2	49	50	4.00	4.00	.

Business Services and Technology Cluster
Vocational-Technical Courses

Career Preparation and Success Skills **CIP Code: Based on Student's Career Objective**

Suggested Grade Level: 9

Recommended Prerequisite: Keyboarding Skill

Course Description:

Orientation to Life and Careers is designed to address the essential knowledge, skills, and behaviors all students need to live successfully in today's world. This course includes but is not limited to exploring career goals, four year career plans, researching job opportunities and the labor market, job search, applications, resumes, interviews, employee evaluations, job survival skills, and the changing economy as it affects employment. Extensive practice in reading, writing, listening, and speaking skills should be emphasized. Thinking skills such as decision making, problem solving, and reasoning will be utilized through report writing, technical writing, and interpreting data. Emphasis should be placed upon effective use of community resources. Instructional strategies may include usage of Internet access to conduct career research, job shadowing, field trips, projects, computers, and community service experiences.

Business Technology Lab I **CIP Code: 52.0401, 52.0407, 52.0408 (Based on Student's Career Objective)**

Suggested Grade Level: 10-11

Prerequisite: Keyboarding Skill

Course Description:

Business Technology Lab I is a vocational business course which will assist students in successfully making the transition from school to work. The business technology curriculum provides instruction in the use of current technology with an emphasis on the integration and application of communication, employability, math, and language arts skills. Educational experiences will be based upon the student's individual career and educational goals. Business Professionals of America is the co-curricular organization associated with this course. Through BPA, students will have the opportunity to participate/compete in business-related activities. Instructional strategies will include in-baskets, minibaskets, LAPS, workflow simulations, and field experiences (job shadowing, mentoring, and/or internships).

Notes:

1. This course may serve as the related classes for Business Cooperative Experiences.
2. Due to the increasing use of technology, this course may be included as a valuable component of all the Indiana Career Clusters and is recommended as a component of Business, Management, and Finance career cluster.
3. If the local school setting does not allow for both the Business Technology Lab I and II, it is recommended that a two-hour Business Technology Lab be offered at the senior level.

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Business Technology Lab II **CIP Code: 52.0204, 52.0302, 52.0402, 52.1299 (Based on Student's Career Objective)**

Suggested Grade Level: 11-12

Prerequisite: Business Technology Lab I

Course Description:

Business Technology Lab II is a vocational business course which will refine the business skills and knowledge previously acquired. As a capstone program, students will be prepared for employment in various business occupations or to continue study in a post-secondary institution.. Educational experiences will be based upon the student's individual career and educational goals. Business Professionals of America is the co-curricular organization associated with this course. Through BPA, students will have the opportunity to participate/compete in business-related activities. Instructional strategies will include in-baskets, minibaskets, LAPS, workflow simulations, and field experiences (job shadowing, mentoring, and/or internships).

Notes:

1. This course may serve as the related classes for Business Cooperative Experiences.
2. Due to the increasing use of technology, this course may be included as a valuable component of all the Indiana Career Clusters and is recommended as a component of Business, Management, and Finance career cluster.
3. If the local school setting does not allow for both the Business Technology Lab I and II, it is recommended that a two-hour Business Technology Lab be offered at the senior level.

Business Management and Finance **CIP Code: 52.0201**

Suggested Grade Level: 11-12

Prerequisite: Algebra, Accounting, Computer Applications, Keyboarding Skill

Course Description:

Business Management and Finance is a vocational business program designed to prepare individuals to plan, organize, direct, and control the functions and processes of a firm or organization and to perform business related functions such as accounting. Students are provided opportunities to apply attitudes, skills, and knowledge in the areas of business management and finance. Individual experiences will be based upon the student's career and educational goals.. Instructional strategies will include in-baskets, minibaskets, LAPS, community projects, field trips, guest speakers, Internet, simulations, and internships. Business Professionals of America is the co-curricular organization associated with this course. Through BPA, students will have the opportunity to participate/compete in business-related activities.

Notes: Although Business Management and Finance may benefit all career clusters, this program is recommended as a component of the Business, Management, and Finance cluster.

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Computer Operations/Programming **CIP Code: 52.1201, 52.1202, 52.1204**
(Based on Student's Career Objective)

Suggested Grade Level: 11-12

Prerequisite: Algebra, Keyboarding Skills, Computer Applications

Course Description:

Computer Operations/Programming is a vocational business program that will assist students in successfully making the transition from school to work. The curriculum provides instruction in the use of current technology in applications, hardware, and programming languages. Individual experiences will be based upon the student's career and educational goals. Instructional strategies will include in baskets, minibaskets, LAPS, community projects, simulations, and internships. Business Professionals of America is the co-curricular organization associated with this course. Through BPA, students will have the opportunity to participate/compete in business-related activities.

Notes:

1. Although Computer Operations/Programming may benefit all career clusters, this program is recommended as a component of Business, Management, and Finance and Engineering, Science, and Technologies clusters.

2. This program fulfills the computer directed elective of Core 40.

Business Cooperative Experiences (related instruction/on-the-job training)
CIP Code: 52.0000

Suggested Grade Level: 11-12

Prerequisite: Business Technology Lab

Course Description:

Business Cooperative Experiences is a vocational business course which provides opportunities for students to gain "real world" attitudes, skills, and knowledge through on-the-job training and related classroom instruction. The classroom instruction may be a blend of both group and individual instruction planned and organized with activities associated toward the career objectives and on-the-job training. This business cooperative experience would allow students school release time for the opportunity to be employed in a business related occupation to apply attitudes, skills, and knowledge from school to work. Students participating in these structured experiences will follow class, state, and federal guidelines. Students will be paid in accordance to all state and federal laws pertaining to employment. This experience will consist of at least one semester and credit will be granted for both the related instruction and on-the-job training.

Note: The Business Technology Lab taken concurrently with Business Cooperative Experiences may count as the related instruction component. Although Business Cooperative Experiences may benefit all career clusters, this program is recommended as a component of the Business, Management, and Finance career cluster.

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ERIC_NO: ED354978
TITLE: Success Rates for Students Meeting ***Prerequisites*** for Fall 1991 vs. Those Who Insist on Taking a Class above Their ***Prerequisite*** Level.
AUTHOR: Landers, Wayne; Kangas, Jon
PUBLICATION_DATE: 1992
ABSTRACT: In the San Jose/Evergreen Community College District in California, ***prerequisite*** levels have been established for almost all courses offered, though students may insist on taking classes above their ***prerequisite*** level. In an effort to validate the district's ***prerequisite*** system, a study was conducted comparing academic success rates of students who met all ***prerequisites*** before taking higher level courses in fall 1991, with success rates of students who took courses above their ***prerequisite*** level from spring 1989 through fall 1991. Results of the study included the following: (1) the overall success rate for all disciplines among students who met their ***prerequisites*** in fall 1991 was 67%; (2) the overall success rate for the 7,261 students who took courses above their ***prerequisite*** level was 50%; (3) students meeting all ***prerequisites*** had a 28% better chance of success than those taking courses above their ***prerequisite*** level; (4) for the 38 disciplines which had 30 or more students taking courses above their ***prerequisite*** level, 94% showed higher success rates for the students meeting ***prerequisites*** than those not meeting the ***prerequisites***; (5) an analysis of the 38 disciplines indicated that meeting ***prerequisites*** was as important to student success in vocational courses as in nonvocational courses; and (6) of the 38 disciplines, only two revealed a small negative correlation between student success rate and having met ***prerequisites***, while four disciplines showed negligible correlations between ***prerequisite*** completion and success. Detailed data tables, with results by discipline, are included. (PAA)
DESCRIPTORS: *Academic Achievement; Community Colleges; Comparative Analysis; Educational Policy; ****Prerequisites***; Program Effectiveness; *Program Validation; *Student Behavior; *Student Evaluation; Success; Two Year College Students; Two Year Colleges
IDENTIFIERS: *San Jose Evergreen Community College District CA
PUBLICATION_TYPE: 143
PAGE: 24; 1
CLEARINGHOUSE_NO: JC930160
EDRS_PRICE: EDRS Price - MF01/PC01 Plus Postage.
LEVEL: 1
LANGUAGE: English
GEOGRAPHIC_SOURCE: U.S.; California
NOTE: 24p.

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ERIC_NO: ED453859
TITLE: How Well Do ***Prerequisite*** Courses Prepare Students for the Next Course in the Sequence? Information Capsule.
PUBLICATION_DATE: 2000
ABSTRACT: This report addresses the success of students as they progress through reading, English, and mathematics course sequences at Miami-Dade Community College (M-DCC) (Florida). Results suggest that passing ***prerequisite*** courses does not ensure that students are adequately prepared for the next course in the sequence, especially in the lower-level college preparatory courses, or when earning 'C' grades in college-level courses. Pass rates in reading courses ranging from 58% to 64%, for students who successfully comp eted the ***prerequisite*** course the previous term, suggest that students were reasonably well prepared. However, mathematics course pass rates indicate that students were not prepared by simply passing the ***prerequisite*** course. For college-level English and mathematics courses, students who earned higher grades in the ***prerequisite*** courses were better prepared for the next course than students who passed with 'C' grades. Results also varied by course within subject areas, with some courses in a sequence appearing to be more difficult for students than others, even after successfully completing the prescribed ***prerequisite*** course. In most cases, students placed directly into courses by test scores were more successful than students who progressed through college preparatory or ***prerequisite*** courses. (JA)
DESCRIPTORS: Academic Ability; Academic Achievement; College Outcomes Assessment; Community Colleges; *Instructional Effectiveness; ***Prerequisites***; *Required Courses; Two Year Colleges
IDENTIFIERS: *Miami Dade Community College FL
PUBLICATION_TYPE: 110; 143
PAGE: 14
CLEARINGHOUSE_NO: JC010412
EDRS_PRICE: EDRS Price MF01/PC01 Plus Postage.
INSTITUTION_NAME: BBB11401 _ Miami-Dade Community Coll., FL. Office of Institutional Research.
REPORT_NO: M-DCC-IC-2000-09C
LEVEL: 1
LANGUAGE: English
GEOGRAPHIC_SOURCE: U.S.; Florida
ERIC_ISSUE: RIENOV2001

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Santa Rosa Junior College
COLLEGE WIDE INFORMATION SYSTEM

Prerequisite Information

A prerequisite is a course or other body of knowledge that will enhance a student's chance of success in another course. Without it, a student is highly unlikely to be successful in the course in which the prerequisite is required. Santa Rosa Junior College will enforce all course prerequisites that have been approved and are listed in the Schedule of Classes.

Q: Why prerequisites?

A: Title 5 (state regulations that govern community colleges) require that, if a course has a prerequisite, it must be necessary for success in the target course. Furthermore, the college must ensure that the prerequisite is equitably and fairly enforced, that it has been approved in a separate action by the Curriculum Review Committee. If you have not completed a prerequisite at SRJC, you will be blocked from enrolling in the course for which the prerequisite is required.

Q: What if I completed the prerequisite at another college or high school?

A: In order to get credit for prerequisite courses taken at other schools, you must file a "Prerequisite Equivalency" form with Admissions and Records. The form can be found in the current Schedule of Classes, Admissions and Records office or on the Admissions and Record's web page (http://www.santarosa.edu/admissions/forms.html). While transcripts are not required at this time, you will sign a statement declaring, under rules of perjury, the accuracy of your course completion. Once you've filed the form, the block to enrollment "flag" will then be lifted thereby allowing you to enroll in the course.

Q: Will Santa Rosa Junior College accept course work from high school as completion of a prerequisite?

A: In some cases, yes; however you should consult with a counselor since some departments may not recognize high school course work. If courses are counted, you must file a "Prerequisite Equivalency" form with Admissions and Records.

Q: Can an instructor sign me into his or her class without having completed the course prerequisite?

A: No. The purpose of prerequisite enforcement is to make sure you have the necessary background to be successful in the course. An instructor's signature will not override the computer's block to enrollment.

Q: What if course instructor does not want the prerequisite enforced?

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Author(s): **Kauffman, Colleen E.; Gilman, David A.**	
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